ABSTRACT OF THE DISCLOSURE

An engine air supply control method relating to a turbocharged engine including an intake manifold (20) which is disposed downstream of the compressor of the turbocharger (14) and an exhaust manifold (22) which is disposed upstream of the turbine of the turbocharger (14). The method includes determining the mass air flow supplying the engine and/or the pressure in the intake manifold (20) and the temperature in the exhaust manifold. The pressure in the exhaust manifold (22) is determined as a function of the pressure in the intake manifold (20), the engine speed, the temperatures in the cylinders (4) and in the exhaust manifold (22), the pressure in the intake manifold (20) being optionally determined from the mass air flow. Inversely, the pressure in the intake manifold